MOBILIZING HEALTH

SMSMD by Mobilizing Health

What do we do at Mobilizing Health?

Mobilizing Health is a health and technology non-profit based in San Francisco. The team consists of recent alums and current students at the University of California, Berkeley and Stanford University. Our goal is to connect under-served communities to licensed practitioners via SMS.

We currently are running our Beta Pilot in rural India with two paid project managers on the ground. Our model is to train literate community members (whom we call Village Health Directors) - whether or not they are medically trained - on how to send text messages with the appropriate information for a patient case, and then connect them to a network of doctors who practice in the adjacent city.

What is SMSMD?

SMSMD is the software we developed to facilitate the communication between village patient and doctor where both the end users - Village Health Directors and doctors use their mobile phones to send and receive messages.

The SMS software available open sourced today allows for either push messaging (one to many) or pull messaging (many to one). However, SMSMD aims to combine the two and allow an inquirer group to obtain answers from an expert group.

Furthermore, all messages are not only captured in a database, but are available online such that the data, software, and entire system can be monitored from anywhere in the world.

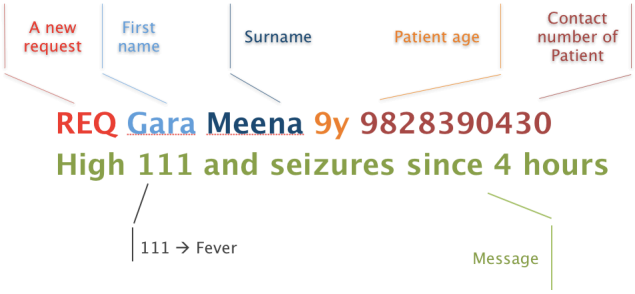
How is SMSMD being used on the ground today?

As mentioned above, Mobilizing Health is running its Beta Pilot in rural India - more specifically, Udaipur, Rajasthan. There, our Implementation Team has trained 26 active Village Health Directors (VHDs), 15 doctors, and two Project Managers. In total, 50 villages are connected through our system.

The following are the steps with examples.

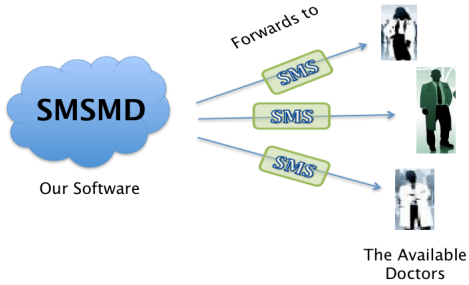
1. <u>The VHD sends an SMS text message to SMSMD</u>

- Example SMS from VHD to SMSMD:

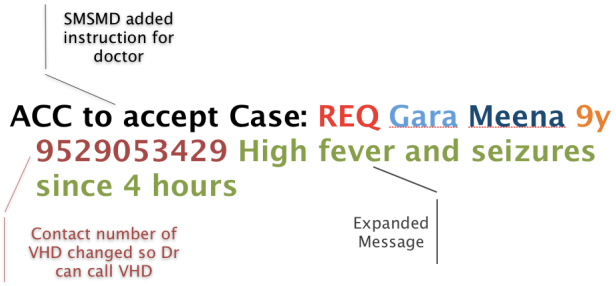


*Note: In India, we bought a gateway with the number +919223173098. Only if the person sending SMSMD a message is in our system, will it accept the message.

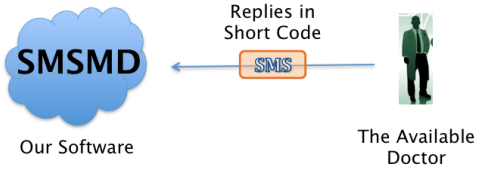
2. <u>SMSMD sends modified message to doctors in network, one doctor every X minutes</u>



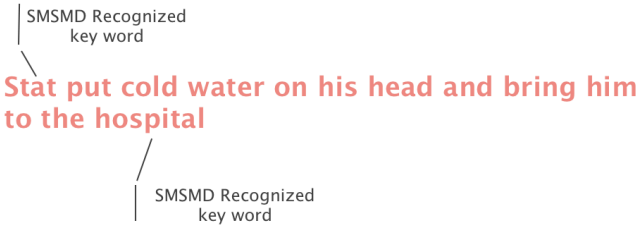
- Example SMS from SMSMD to Doctor:



3. <u>Doctor Accepts the Case and replies to SMSMD in short code for efficiency</u>

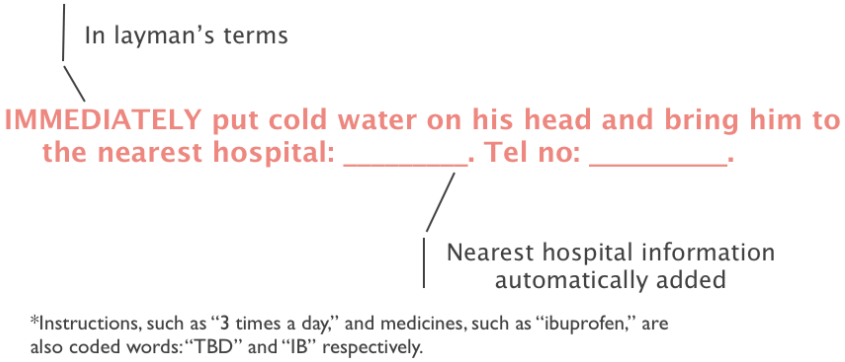


- Example SMS from Doctor to SMSMD:



4. SMSMD sends expanded message to VHD

- Example SMS from SMSMD to VHD:



*Instructions, such as "3 times a day," and medicines, such as "ibuprofen," are also coded words: "TBD" and "IB" respectively.

What's next for Mobilizing Health and SMSMD?

In the next two years, Mobilizing Health will partner with various organizations who work with the rural and slum sectors at a local level - non-profits, NGOs, hospitals, med schools, etc - and implement a customized system with each to scale throughout India. In the future, we hope to move to other developing countries.

But with scale, we want to increase features in SMSMD. Some of our next milestones while we scale are:

1. Be able to track symptoms and epidemics
   - The power of SMS is that every message is searchable. With all the data we are collecting, we look to automatically be alerted of health trends based on location, season, and other diseases.
2. Obtain consistent response times from doctors using an algorithm
   - Our Technical Team is currently working to implement an algorithm that learns each doctors' tendency to answer messages, and calculate what the optimal order of paging doctors to get response times within 5-7 minutes.
3. Add picture messaging capability
   - Pictures along with SMS will greatly increase the fidelity of doctors' diagnosis in ailments such as skin diseases (one of the top 4 medical issues in rural areas) and bodily discolorations.
4. Implementing voice capability
   - Literacy rates in rural areas are around 30% and the volume of patients will most likely increase if the barrier of taking the time to send a text message was removed. However, voice capability will change our model, and further testing needs to be conducted as to whether this will provide better health care.